

TAIL OF STATIONARY PROBABILITY OF STOCHASTIC DYNAMICAL SYSTEMS

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A stochastic dynamical systems (SDS) is a random processes defined recursively by $X_n^x = \Psi_n(X_{n-1}^x)$, $X_0^x = x$, where Ψ_n are i.i.d. random continuous transformations. We consider the class SDS on the real line, that are asymptotically linear in $+\infty$ and $-\infty$, that includes interesting precess such as Affine recursion, Reflected random walk , Logistic recursion, AR(1)-model... . We investigate conditions for the existence of a stationary probability measure and describe the behaviour at infinity of such a measure.